REMARKS

Claims 26-38, 41-44, and 49-53 are all the claims pending in the application. By this Amendment, Applicants add new claims 52 and 53. Claims 22-25, 39, 40, 45, 46, and 48 have been canceled without prejudice or disclaimer.

Claim Rejections - 35 U.S.C. § 103

Claims 22-31, 34, 37, 39, 41-46, and 48-51 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Publication No. 2004/0165558 to Ling *et al.* ("Ling") in view of U.S. Publication No. 2004/0143428 to Rappaport *et al.* ("Rappaport"). Claims 32, 33, and 38 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ling in view of Rappaport, and further in view of U.S. Publication No. 2005/0075073 to Kadous *et al.* ("Kadous"). Claims 35 and 36 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ling in view of Rappaport, and further in view of U.S. Patent No. 5,861,781 to Ashby. Claim 40 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ling in view of Rappaport, and further in view of U.S. Publication No. 2005/0058114 to Santhoff *et al.* ("Santhoff").

Applicants do not acquiesce to these rejections. In order to expedite prosecution, however, Applicants rewrite claims 26, 28, and 35 in independent form and cancel claims 22 and 23. Independent claims 41, 42, 49, and 50 have been amended to include features similar to those recited in claim 26. Independent claims 43, 44, and 51 have been amended to include features similar to those recited in claim 28.

Claims 26, 35, 41, 42, 49, and 50

Applicants respectfully submit that the combined teachings of Ling and Rappaport do not teach or suggest the features recited in claims 26, 35, 41, 42, 49, and 50. For example, these claims recite, in some variation, instructing said symbol rate setting means to set *a high symbol rate or a low symbol rate* in said modulating means and said demodulating means *based on the detected propagating state of radio waves*.

The Examiner acknowledges that Ling does not teach a symbol rate. However, the Examiner contends that Rappaport's paragraph [0045] teaches setting and selecting a symbol rate based on the detected propagation state (Office Action, paragraph bridging pages 2-3). Further, the Examiner contends that Rappaport teaches selecting a symbol rate based on real time radio frequency environmental conditions, and that Rappaport teaches a direct relationship between the setting of the symbol rate and the propagating environment. *Id.* Applicants respectfully disagree.

For example, although the Examiner only cites the "real time radio frequency environmental conditions" from paragraph [0045] of Rappaport, this paragraph as a whole discloses that automated determination of desirable configuration settings for a wireless transceiver is based on at least "the real time radio frequency environmental conditions and user activities in the network" (Rappaport, paragraph [0045], emphasis added). Therefore, Rappaport discloses that a real time usage situation of frequency resources that are utilized by users in a network (i.e., which frequencies are utilized by users) is taken into account when determining the above-noted configuration settings. Rappaport does not teach or suggest taking into account multipath interference that occurs in the same frequency (e.g., see claims 27 and 29).

Moreover, even if Rappaport's cited portion is interpreted to mean only "environmental conditions" rather than the real time radio frequency environmental conditions, Applicants submit that Rappaport further discloses that "the automated determination of desirable configuration settings" is based on (1) desired network performance requirements, (2) the real time radio frequency environmental conditions and user activities in the network, (3) specifications and capabilities of the infrastructure hardware, and (4) configuration settings (Rappaport, paragraph [0045]). These configuration settings include overall coverage, overall capacity, specific coverage for a user class, specific capacity for a user class, coverage for a subset of users, capacity for a subset of users, handoff rate, dropped call rate, blocked call rate, dropped packet rate, symbol error rate, symbol rate, acceptable coverage zones, and throughput (average, peak, individual, group, class or subclass, bit error rate, packet error rate, frame error rate, signal level quality of service, or any other measurable performance metric). *Id.* In other words, Rappaport only defines input elements and output elements that are the basis for the "automated determination", and thus does not teach a direct relationship between the propagating environment (which is allegedly one of the input elements), and the setting of the symbol rate (which is one of the output elements). Furthermore, Rappaport is directed to "a system for modeling a communication network" and does not target respective radio devices that *actually* communicate, as required by the claims (Rappaport, claim 1, paragraphs [0058] and [0146]). In addition, Rappaport fails to describe that its radio devices have access to any "detected propagation state", as claimed.

In view of the above, Applicants respectfully submit that Rappaport alone, or in combination with Ling, does not teach or suggest all the features recited in claims 26, 41, 42, 49,

and 50. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a)

rejection.

Ashby also does not cure the deficient teachings of Rappaport and Ling. Therefore,

claim 35 is patentable for *at least* reasons similar to those given above with respect to claim 26.

Claims 28, 43, 44, and 51

Claims 28, 43, 44, and 51recite, in some variation, instructing said modulating

means/demodulating means selecting means to select modulating means and demodulating

means which have *a high symbol rate* or to select modulating means and demodulating means

which have *a low symbol rate based on the detected propagating state of the radio waves*.

Accordingly, Applicants respectfully submit that these claims are patentable over the combined

teachings of Ling and Rappaport for *at least* reasons similar to those given above with respect to

claim 26.

Claims 27 and 29-38

Claims 27, 29-31, and 34-37 are patentable *at least* by virtue of their dependency.

Claims 32, 33, and 38 depend from claims 26 or 28. Since Kadous does not cure the

deficient teachings of Ling and Rappaport with respect to claims 26 and 28, claims 32, 33, and

38 are patentable *at least* by virtue of their dependency.

New Claims

New claim 52 recites modulating means/demodulating means selecting means for

selecting one of said modulating means and one of said demodulating means for modulating the

input transmission data and for demodulating the reception signals, respectively, based on the

detected propagating state. Therefore, claim 52 is patentable for *at least* reasons similar to those given above with respect to claim 26.

New claim 53 is patentable *at least* by virtue of its dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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　　　　　　　　　　　　　　　　　/Quadeer A. Ahmed/_____
SUGHRUE MION, PLLC　　　　　　Quadeer A. Ahmed
Telephone: (202) 293-7060　　　　　Registration No. 60,835
Facsimile: (202) 293-7860

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